SPARE PARTS MASTER

KE-2850QR

CASSETTE CAR STEREO
WITH FM/AM ELECTRONIC TUNER

SUPER TUNER

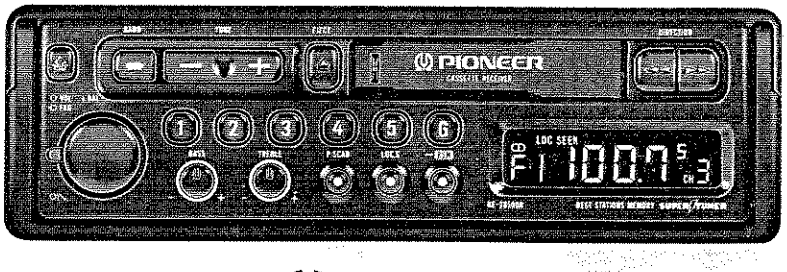
OWNER'S MANUAL

Thank you for purchasing this PIONEER product. Before attempting operation, be sure to read this manual.

Nous vous remercions d'avoir acheté cet appareil PIONEER. Avant de l'utiliser, prendre soin de lire ce manuel.

Muchas gracias por la adquisición de este producto PIONEER. Antes de tratar de operarlo, lea atentamente este manual.

شكرا لك على شرائك جهاز پايونير هذا. قبل محاولة تشغيله تاكد من قراءة هذا الدليل.



PIONEER®

The Art of Entertainment

ENGLISH

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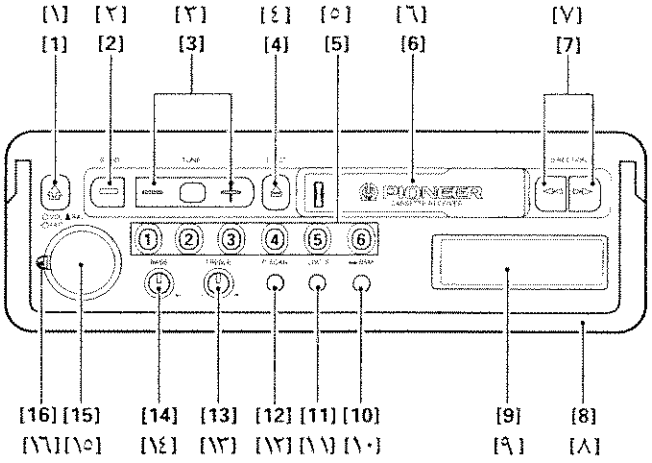

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Fig. 1

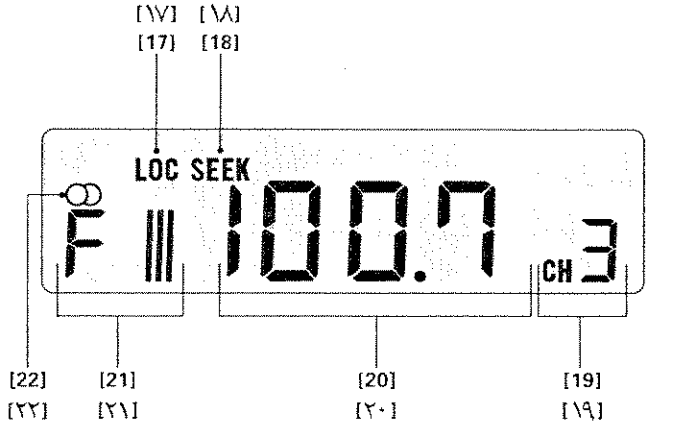

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Fig. 2

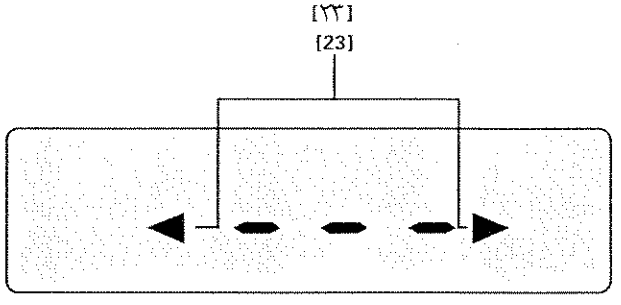

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Fig. 3

Precautions

- *While driving keep your listening volume at a level which does not mask important outside traffic noises, such as emergency vehicles, etc.*
- *Never remove the top case of the unit to attempt check or repairs. If operation of the unit is abnormal, contact your dealer or the nearest Pioneer Service Station.*

In case of trouble
When the unit does not operate properly, contact your dealer or the nearest authorized PIONEER Service Station.

Changing the Tuning Step

Parts Identification (Fig. 1)

[3] Tuning
[4] Eject
[15] Power Switch

Changing the Tuning Step

The tuning steps of the AM band for this unit can be switched between 9 kHz and 10 kHz per step. The tuning step should be switched from 9 kHz (which is preset at the factory) to 10 kHz when this unit is used in North America, Central America, or South America.

1. Press the eject button [4] to eject the cassette, and then turn left the power switch [15] to turn off the power.
2. To change the AM tuning step, hold down the up (+) or down (–) tuning button [3] and at the same time turn the power switch [15] on. It should be noted that changing the tuning step also deletes frequencies stored in the tuning memories.

Specification		Initial setting	New setting
AM	Tuning steps	9 kHz steps	10 kHz steps
	Frequency range	531 — 1,602 kHz	530 — 1,710 kHz

Connecting the Units

Note:

- *This unit is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck, or bus, check the battery voltage.*
- *To avoid shorts in the electrical system, be sure to disconnect the battery ⊖ cable before beginning installation.*
- *Refer to the owner's manual for details on connecting the various cords of the power amp and other units, then make connections correctly.*
- *Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap adhesive tape around them where they lie against metal parts.*
- *Route and secure all wiring so it cannot touch any moving parts, such as the gear shift, handbrake, and seat rails. Do not route wiring in places that get hot, such as near the heater outlet. If the insulation of the wiring melts or gets torn, there is a danger of the wiring short-circuiting to the vehicle body.*
- *Do not shorten any leads. If you do, the protection circuit may fail to work when it should.*
- *Never feed power to other equipment by cutting the insulation of the power supply lead of the unit and tapping into the lead. The current capacity of the lead will be exceeded, causing overheating.*
- *Don't pass the orange lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation and cause a very dangerous short.*
- *Replace fuses only with the types stipulated on the fuse holder.*

2-speaker system (Fig. 4)
4-speaker system 1 (Fig. 5)
4-speaker system 2 (Fig. 6)

1. Antenna jack
2. Black (ground)
   To vehicle (metal) body.
3. Red
   To electric terminal controlled by ignition switch (12 V DC) ON / OFF.
4. Fuse holder
5. Blue
   To system control terminal of the power amp or Auto-antenna relay control terminal (Max. 300 mA 12 V DC).
6. Blue
7. Rear out
8. Red
9. White
10. Connecting cords with RCA pin plugs (sold separately)
11. Power amp (sold separately)
12. Green
13. Gray
14. Green / red
15. Gray / red
16. Black
17. Left speaker
18. Right speaker
19. Front / left speaker
20. Front / right speaker
21. Rear / left speaker
22. Rear / right speaker
23. Not connected to anything for 2-speaker system.
24. No connection in this type of system.

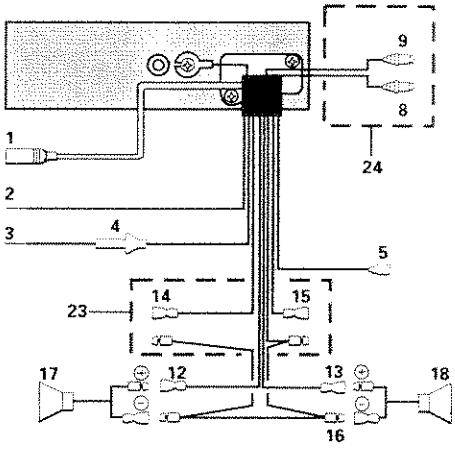
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Fig. 4

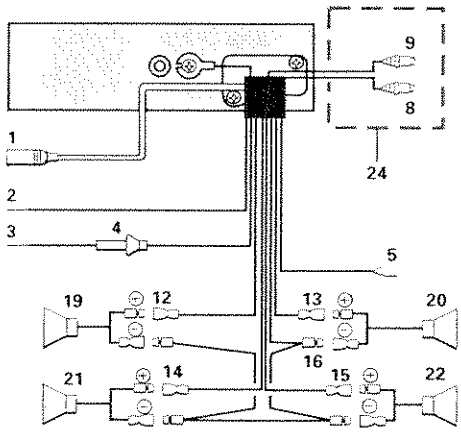
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Fig. 5

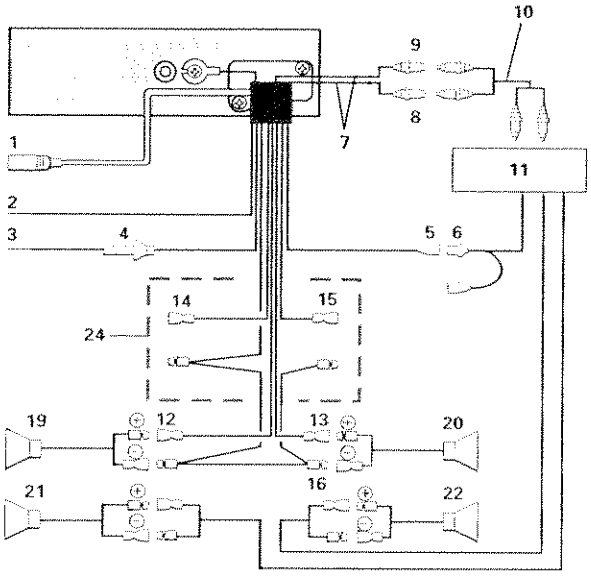


Fig. 6

- *Connect to the front speakers with the green and gray leads. If you connect with the green / red and gray / red leads, this unit's fader control will not operate.*

Installation

Note:

- *Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.*
- *Before finally installing the unit, connect the wiring temporarily, making sure it is all connected properly, and make sure the system works properly.*
- *Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.*
- *Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.*
- *If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance. (Fig. 7)*

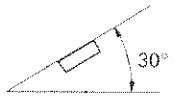


Fig. 7

Parts Identification (Fig.1)

[1] Pop-up button
[8] Handle

Locking and releasing Quickrelease Handle

Push the pop-up button [1] in the mechanism to move the quickrelease handle [8] up slightly. If the quickrelease mechanism will not be used, you can lock the handle, keeping it down.

Locking the Handle (Fig. 8)

Insert the attached pin through this hole and slide the handle lock lever to the front. Move the handle to the bottom to lock it.

Releasing the Handle Lock (Fig. 9)

Insert the attached pin through this hole to release the handle lock, pushing the pin until it clicks. In the initial setting, the handle lock is released. (You can see this hole when you move the fader control lever up or down from the left horizontal position.)

1. Handle lock lever
2. Attached pin
3. Pop-up button
   When the quickrelease handle is on the bottom, push the button to move it up slightly. Push it when you remove the unit from the dashboard.
   The button works only when the handle lock is released.

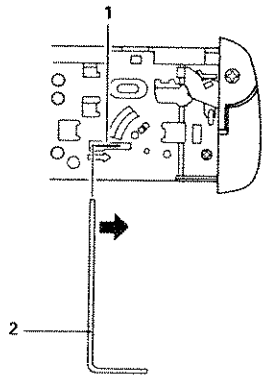


Fig. 8

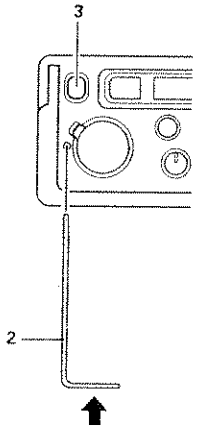


Fig. 9

Installation with the rubber bush (Fig. 10)

Installation without the rubber bush (Fig. 11)

1. Dashboard
2. Holder
   After inserting the holder into the dashboard, select the appropriate tabs according to the thickness of the dashboard material and bend them inwards to secure the holder in place.
3. Rubber bush
4. Screw
5. Nut (5 mm)
6. Drill a 5.5 — 6.0 mm diameter hole.
7. Screw (5 × 16 mm)
8. Strap
   Be sure to use the strap to secure the back of the unit in place. The strap can be bent by hand to the desired angle.
9. Install it with stamp (A) facing upward.

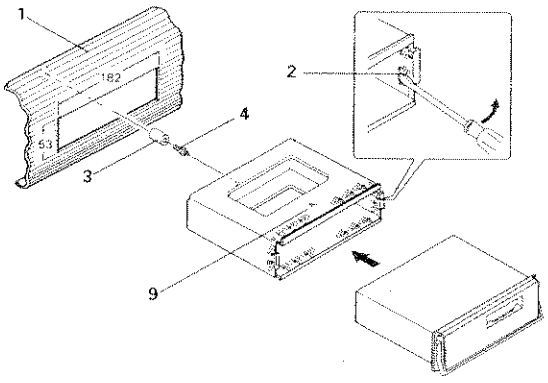


Fig. 10

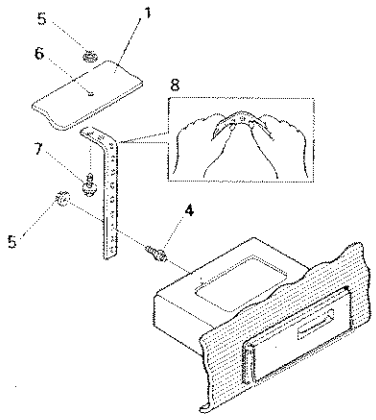


Fig. 11

Pop-up button

When the quickrelease handle [8] is on the bottom, push the button [1] to move it up slightly. Push it when you remove the unit from the dashboard.
The button works only when the handle lock is released.

- Before removing this unit from your vehicle, be sure to remove cassette tapes and make sure that radio power is switched OFF.

Using the Radio

Parts Identification (Fig. 1)

[2] Band
[3] Tuning
[5] Preset
[9] Display
[10] Best Stations Memory (BSM)
[11] Local Station
[12] Preset Scan
[13] Treble
[14] Bass
[15] Volume / Balance / Power Switch
[16] Fader

(Fig. 2)

[17] Local Station
[18] Seek
[19] Preset Number
[20] Frequency
[21] Band
[22] Stereo

Listening to the Radio

- **Before attempting operation...**
- Set the fader control [16] to the left horizontal.

1. Turning the power switch [15] to the right causes power to switch ON and the current frequency to appear on the display [20].
   - Since the set is designed preferentially for tape play, eject a cassette tape, if loaded, before operating the radio.
2. Press the button [2] to select the band.
3. Press both ends of the button [3] and the seek tuning indicator will appear on the display [18].
4. Press either the left or right side of the button [3] to tune in the desired frequency. (Pressing the right side will increase the frequency.)
5. Adjust the volume and balance. To adjust the balance, first pull the knob [15] until a click is heard. After setting to the desired level, push the knob [15] in again to its original position.
6. Adjust the tone [13], [14].

- **To enter a frequency into the preset memory...**

7. Hold down one of the buttons in Bank [5] for approximately 2 seconds. The frequency is stored in memory (assigned to the button in Bank [5] pressed) once the preset number stops flashing on the display [19].
   6 FM1 frequencies, 6 FM2 frequencies, 6 FM3 frequencies and 6 AM frequencies can be entered.

BSM (Best Stations Memory)

This function automatically locates stronger stations and automatically assigns their frequencies to the buttons in Bank [5], from strongest to weakest. It comes in handy when trying to find local stations while driving.

1. Press button [2] and select a band.
2. Holding down button [10] for about 2 seconds will start BSM search. At this time, "- - -" will flash on the display.
3. The frequency display will return once BSM search is complete, and frequencies are assigned to buttons 1 through 6 in Bank [5].

- At the end of the BSM search, the displayed frequency is that assigned to button ① of Bank [5].
- If there are fewer than 6 strong stations in the area, some of the buttons in Bank [5] will not be assigned frequencies, so they will retain any frequencies assigned to them previously.
- BSM search may take as long as 30 seconds in areas where there are few strong stations.

Fader Control

This control is used to adjust the balance between the front and rear speakers when using a 4-speaker system. Turning the control [16] upward decreases the volume of the rear speakers, while turning it downward decreases the volume of the front speakers. With 2-speaker systems, set this control [16] to horizontal.

- A considerable amount of sound will continue to be produced from speakers of a 4-speaker system which have been cut by setting the fader control either to the front speakers or rear speakers. This is normal and does not indicate malfunction.

Auto-Loudness

When playing back a tape or listening to the radio at low volume, the low tone is automatically emphasized.

Preset Scan Tuning

This function lets you automatically monitor the stations assigned to the preset buttons.

1. Press the button [12], and the preset number [19] flashes.
   Each station assigned to the buttons in Bank [5] will be automatically tuned in for about 8 seconds.
2. When you hear a station that you like, press button [12] again to cancel preset scan tuning and remain at that station.

Adjusting Seek Sensitivity

The seek tuning function of this tuner lets you select between a local setting for reception of strong stations only, and a DX (distant) setting for reception of weaker stations. The local setting also has four seek tuning sensitivity levels for FM and 2 levels for AM to match local conditions.

Changing the Local Seek Sensitivity

1. Use button [2] to select a band.
2. Hold down the button [11] for more than 2 seconds, and the display will show you the current local seek sensitivity for about 5 seconds.
3. While the local seek sensitivity remains on the display, press the (+) side of button [3] to increase the sensitivity level, and the (–) side to decrease the level as shown below.
   FM : L-1 ⇄ L-2 ⇄ L-3 ⇄ L-4
   AM : L-1 ⇄ L-2
   The L-4 setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations.

- The display of local seek sensitivity returns to the frequency when about 5 seconds have elapsed after the change of sensitivity.

Switching between Local and DX

Press button [11] to switch between Local and DX (distant) seek tuning.
When "LOC" [17] is shown on the display, seek tuning is performed with the local seek sensitivity. Otherwise, seek tuning is performed with the DX seek sensitivity.

Manual Tuning

Use manual tuning when stations are too weak to be picked up by seek tuning.

1. Press both (+) and (–) sides of button [3] at the same time to clear "SEEK" [18].
2. Each press of the (+) side of button [3] increases the frequency in 50 kHz steps in the FM band, 9 kHz in the AM band. Pressing the (–) side of button [3] decreases the frequency. Holding down either side of button [3] changes the frequency at high speed.

- AM frequencies are turned in 10 kHz steps after the tuning steps are changed.

ENGLISH

Using the Tape Deck

Parts Identification (Fig. 1)

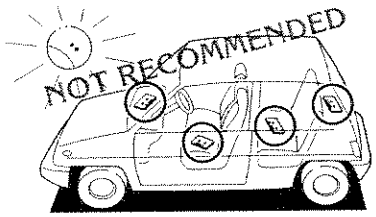
[4] Eject
[6] Cassette Door
[7] Fast Forward, Rewind / Direction Change
[9] Display
[13] Treble
[14] Bass
[15] Volume / Balance / Power Switch
[16] Fader

(Fig. 3)

[23] Direction

About cassette tapes

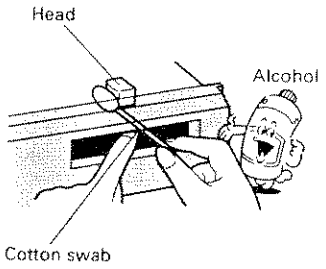
- *Do not use tapes longer than C-90-type (90 min.) cassettes. Longer tapes can interfere with tape transport.*
- *Storing cassettes in areas directly exposed to sunlight or high temperatures can distort them and subsequently interfere with tape transport.*



- *Store unused tapes in a tape case where there is no danger of them becoming loose or being exposed to dust.*

Cleaning the head

If the playback head becomes dirty, sound quality will suffer. Periodically (once or twice a month) clean the head with a cotton swab soaked with alcohol.



Listening to a tape

- **Before attempting operation...**
- Set the fader control [16] to the left horizontal.

1. Turning the power switch [15] to the right causes power to switch ON.
2. Loading a cassette tape into the load slot [6] causes playback to begin automatically.
3. Adjust the volume and balance. To adjust the balance, first pull the knob [15] until a click is heard. After setting to the desired level, push the knob in [15] again to its original position.
4. Adjust the tone [13], [14].
5. When tape playback reaches the end of the tape, playback will automatically switch from the side being played to the opposite side (ie. Side A to Side B or vice versa) (Auto-reverse). To eject the tape during playback, press the button [4].

- *A loose or warped label on a cassette tape may interfere with the eject mechanism of the unit or cause the cassette to become jammed in the unit. Avoid using such tapes or remove such labels from the cassette before attempting use.*
- *Do not try to eject the cassette immediately after insertion, as it will cause malfunction. Wait a few seconds.*
- *Loose tapes should be rewound with the aid of a pencil and unevenly wound tapes rewound with the use of the fast forward function.*

- *Be sure to eject the tape when the vehicle's ignition is turned OFF. Leaving the tape in the unit can deform the pinch roller causing wow and flutter during tape playback.*

Changing Program

Push the fast forward and rewind buttons [7] together to switch from one side of the tape to the other (from Side A to Side B or vice versa).

Using Fast Forward and Rewind

Press the fast forward button (the right side of button [7] shown in Fig. 1) to advance the tape at high speed and the rewind button (the left side of button [7]) for high speed return.
In fast-forward, the tape automatically switches from one side to the other when it reaches the end of the tape, and begins play from the other side (Auto-reverse).
In rewind, the tape automatically starts play after rewinding all the way back to the beginning of the tape (Auto-replay).
When you release fast forward / rewind, lightly press button [7] located on the opposite side of the one you pressed to fast forward or rewind.

Specifications

General

Power source ..... 14.4 V DC (10.8 — 15.6 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 2.5 A
Dimensions (chassis) ..... 178(W) × 50(H) × 141(D) mm
(nose) ..... 188(W) × 58(H) × 17.5(D) mm
(mounting bracket) ... 182(W) × 52(H) × 152.5(D) mm
Weight ..... 1.3 kg

Amplifier

Continuous power output is 3.2 W per channel min. into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.
Maximum power output ..... 8.5 W × 2 / 7 W × 4 (EIAJ)
Load impedance ..... 4 Ω (4 — 8 Ω allowable)
Preout output level / output impedance ..... 500 mV/1 kΩ
Tone controls (bass) ..... ±10 dB (100 Hz)
(treble) ..... ±10 dB (10 kHz)
Loudness contour ..... +8 dB (100 Hz) (Volume: -30 dB)

Tape player

Tape ..... Compact cassette tape (C-30 — C-90)
Tape speed ..... 4.8 cm/sec.
Fast forward / rewind time ..... Approx. 100 sec. for C-60
Wow & flutter ..... 0.13% (WRMS)
Frequency response ..... 40 — 14,000 Hz (±3 dB)
Stereo separation ..... 45 dB
Signal-to-noise ratio ..... 52 dB (IEC-A network)

FM tuner

Frequency range ..... 87.5 — 108 MHz
Usable sensitivity ..... 11 dBf (1.0 µV/75Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity ..... 16 dBf (1.0 µV/75Ω, mono)
Signal-to-noise-ratio ..... 70 dB (IEC-A network)
Distortion ..... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response ..... 30 — 15,000 Hz (±3 dB)
Stereo separation ..... 40 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range ..... 531 — 1,602 kHz (9 kHz)
530 — 1,710 kHz (10 kHz)
Usable sensitivity ..... 18 µV (25 dB) (S/N: 20 dB)
Selectivity ..... 50 dB (±9 kHz)
50 dB (±10 kHz)

Note:

Specifications and the design are subject to possible modification without notice due to improvements.